The NICHD Connection

Former Fellow Follow-up with Dr. Kevin Francis, Assistant Professor

February 2020

INSIDE THIS ISSUE

Former Fellow Follow-up with	1
Dr. Kevin Francis, Assistant	
Professor	
Letter from the Editor	2
Categorize, then Answer: How	6
to Respond to Questions	
During an Interview	
The Rep Report	8
Upcoming NIH-Wide OITE	10
Events	
NIH Library Training and Events	11
February Announcements	12
February Events	13

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Dr. Kevin Francis is an Assistant Professor at The Children's Health Research Center at Sanford Research in South Dakota. During his six years at the NICHD (2009-2015), he was a postdoctoral fellow first in the laboratory of Dr. Heiner Westphal. Upon Dr. Westphal's retirement, he transitioned into the laboratory of Dr. Forbes (Denny) Porter. Dr. Francis' research was focused on defining how lipid metabolism regulates pluripotency and neurodevelopment using human induced pluripotent stem cell models.



Dr. Kevin Francis

Check out our Q&A with Dr. Francis to learn more about his postdoc to PI transition:

Q: Did you always know you wanted to run your own lab? What led you to this career path?

A: Early in my graduate career, I was dead-set on going to industry after my PhD. However, the more experience I gained in different fields, my views slowly began to shift towards a career as a principal investigator. I love the scientific freedom this allows, but also mentorship of junior researchers this position entails.

Q: What's your typical day like as an Assistant Professor at your institution?

A: My typical day is a balance between benchwork, working on grants or manuscripts, mentorship/outreach, and committee meetings. On an average day, probably a 25:40:15:20 percent effort of each, respectively. Unlike most academic positions, my institute is a little unique in that classroom instruction is a minor portion of our jobs.

(continued on page 3)

Letter from the Editor

Two years ago this month, *The NICHD Connection* ran a two-part series on tough topics. The first article focused on **project sharing during the postdoc to PI transition**. We now loop back to this theme as we begin a series of Former Fellow Follow-ups with NICHD fellows who are newly appointed Assistant Professors.

Our first follow-up is with Dr. Kevin Francis, Assistant Professor at Sanford Research. If you're curious, Dr. Francis was able to take the majority of models and projects he developed as a postdoc to begin his own research group. Check out our **Q&A with Dr. Francis** to learn more about his postdoc to PI transition, and stay tuned for additional follow-ups with current Assistant Professors in the coming months.

Most fellows who become an Assistant Professor go through an extensive interview process. Dr. Katherine Bonnington, postdoc in the Machner lab, recaps the latest "Interviewing Skills" workshop with public speaking coach Scott Morgan. Her article on page 6 steps through ten categories of interview questions and recounts Morgan's advice for answering each type.

We round out this postdoc to PI centered issue with an extensive update from our postdoctoral Institutes and Centers representative, Dr. Anshika Jain, in her "Rep Report." She relays many opportunities with the NIH Fellows Committee (FelCom) to develop critical skills used by Assistant Professors, such as working on a team, serving on a committee, and attending a conference on an organization's behalf.

Until next month, happy reading!

Your Editor in Chief, Shana R. Spindler, PhD

Please send questions, comments, or ideas to our editor at **shana.spindler@nih.gov**.



Former Fellow Follow-up with Dr. Kevin Francis, Assistant Professor

(continued from page 1)

Q: What's the character of your academic environment (primarily teaching, research, clinical, etc)? And how does your academic environment influence your research?

A: My faculty position is at a private research institute within a large Midwest healthcare organization. We do not have a lot of students, so traditional classroom teaching is a very small part of our effort. I'm primarily expected to focus on the development of translational research programs to impact human health. While my research program also has basic science components, this translational focus was very appealing to me and was one of the reasons I accepted my current position.

Q: On average, how many hours per week do you spend teaching/mentoring, versus writing grants, versus managing the lab?

A: I'm not sure about specific number of hours. I tend not to count! I would say it's similar to a postdoc except instead of being in the lab most waking moments, I'm writing, going through committee work, establishing/cultivating collaborations through meetings, etc.

Q: How did you define the scope of your research? Did you find it hard to find a balance between broad questions versus a narrow focus?

A: This is definitely a problem early on when you have 100 ideas for projects but only enough staff to work on a handful. You will also have lots of people at your new institute that want to collaborate with you, which is also going to take time and effort away from yourself or your staff. You really need to prioritize projects that you feel are the most interesting scientifically but are also likely to lead to sustainable funding down the road. As you are testing out new hypotheses and projects, you'll find ideas that stick and likely lead in new directions. But, maintaining on overall scope for your research program will be essential.

Q: What are your funding sources for your research and how did you secure them?

A: My department has been fortunate to obtain several large program grants through NIH, which help support a number of junior faculty like myself while I'm still trying to obtain a R01-level grant. I've also been lucky to obtain some smaller grants from private foundations to help support some specific projects. These are typically very competitive but can lead to greater recognition by reviewers of large NIH grants.

(continued on page 4)



Former Fellow Follow-up with Dr. Kevin Francis, Assistant Professor

(continued from page 3)

Q: What trials and tribulations did you encounter while setting up your lab and forming your group?

A: The biggest issue I ran into was recruiting high quality employees or students to my lab. It's critical to not just fill open positions with warm bodies, but to find motivated individuals who fit with your group. Particularly in a new, small lab where everyone needs to contribute, one poor personnel choice on your part can diminish both your lab's productivity and personal dynamic. If possible, have people you trust at your new department help evaluate potential hires (particularly postdocs) to help you avoid making a potentially catastrophic mistake.

Q: How did you find lab personnel? Do you have recommendations for how to structure your lab at the beginning (for example, ratio of undergraduate students to graduate students to postdocs)?

A: How you fill your lab staff is going to depend a lot on your department, program, and location. At my institute, technicians and postdocs dominate lab personnel. Undergraduates are rare, outside of summer research programs (though I have managed to recruit a couple to work part-time during the school year as well). Graduate students are also few in number, and it can be very competitive to recruit top students from more established labs. Personnel and staffing is a critical subject fellows should be discussing with prospective departments to get a feel for how labs are staffed. Postdocs are expensive but can also help drive some of the intellectual process. Some departments will provide support for graduate students, while other departments will require faculty to fully pay for student stipends and insurance from their start-up package/grants. I've managed to obtain a mix of undergrads, grad students, a technician, and a postdoc, which works, for me.

Q: Where do you seek out mentorship?

A: Anywhere and everywhere. While my institute has a pre-established mentorship program for junior faculty, this doesn't always provide the right kind of support (either emotionally or intellectually). Therefore, I've tried very hard to identify other individuals, through regional collaborations or at scientific meetings, who I can also lean on from time to time. Early on, I also relied on some former colleagues at NICHD for guidance.

(continued on page 5)



Former Fellow Follow-up with Dr. Kevin Francis, Assistant Professor

(continued from page 4)

Q: What was the application/hiring process like? Did it take a long time?

A: For the position I accepted, I first interviewed for the position in January, received an offer in April, and started in July. Pretty quick really. Other places where I applied were sometimes considerably longer, maybe owing to interviewing more candidates, institute bureaucracy, etc. If you have applied somewhere and want an update, it's definitely ok to politely email the search committee chair to get an idea of where your application stands.

Q: Were there any workshops or programs at the NIH that helped you prepare for your current position?

A: I think I participated in every workshop offered by OITE or NICHD at one time or another during my training. I don't think there was a single workshop where I didn't learn at least one thing new. Take advantage of these opportunities, as well as reaching out to Drs. Lori Conlan and Sharon Milgram at OITE and Dr. Yvette Pittman at NICHD* for one-on-one assistance. Also, I would strongly encourage going through the K99 or K22 grant writing process, so you know what you're in for as a faculty member. Even if you don't receive the award, this is a great learning experience for submitting R-grants to NIH.

Q: Do you have any final tips for fellows who are thinking about running their own labs?

A: Don't get discouraged. You are going to have setbacks scientifically but push on. You were hired because you are a good scientist with lots of potential. Also, your grant applications are going to get trashed, sometimes with little or no feedback. Remind yourself this is happening to everyone and persevere. Lastly, surround yourself with good people. Having a lab full of people you can trust, as well as a career support network through colleagues and a personal support network at home with friends and family, will be vital to your success.

*Editor's Note: We also encourage you to reach out to NICHD Office of Education Associate Director, **Dr. Erin Walsh**, whose time in the office did not overlap with Dr. Francis.



Categorize, then Answer: How to Respond to Questions During an Interview

By Katherine Bonnington, PhD

Preparing to answer the barrage of unfamiliar questions presented during a job interview can seem an insurmountable task. To help postdoctoral fellows navigate daunting inquiries—both technical and personal—the NICHD Office of Education invited public speaking coach Scott Morgan to give a job interviewing workshop on December 12, 2019.

Scott Morgan, author of *Speaking about Science* and director of his own communication consulting group, is an invaluable resource for NIH postdoctoral fellows preparing for the next steps in their careers. With over 20 years of experience in teaching scientists how to effectively communicate their work, prepare for talks, and navigate job interviews, Scott Morgan is the go-to person for reliable advice on how to ace an interview. He delivers engaging, useful, and interactive seminars—I highly recommend attending one of his future workshops.

In the December "Interviewing Skills" workshop, Scott Morgan outlined a method to effectively navigate questions during an interview. Morgan advises that fellows carefully assign each interview question to one of the following ten categories:

1. Personal Background

"Tell me about yourself" is a common phrase you might hear. Ask if the interviewer would like to know about your personal or academic background. If you are not born in the United States, Morgan suggests addressing the time period from birth to 18 years of age. Keep in mind that anecdotes and examples hold more weight than listing adjectives about yourself.

2. Academic Background

Address the period of time between college and your postdoctoral fellowship. Do not list information that is easily found in your Curriculum Vitae. Instead, share your "ah-ha!" moments. Focus on highlights and keep chronological lists to a minimum.

3. Early Scientific Motivation

When answering questions that focus on your early motivation, the principles of the prior two categories apply. A relevant anecdote from a highlight in your early scientific career will hold more weight than a list of events or adjectives about your personality.

4. Specific Field Motivation

Interviewers will want to know why you chose your field of study. Morgan suggests highlighting the field shifts in your work history that led you to your current work. You should also know potential funding sources, the school's mission statement, and the program's breadth of publications in preparation for the question "why do you want to come here?"

5. 5-Year Plan

For questions related to this category, demonstrate that you have thought through your future aims, grants, and goals. Use present tense and describe events in extreme detail. For industry careers, address how you can contribute to employee retention, profit, and efficiency.

(continued on page 7)



Categorize, then Answer: How to Respond to Questions During an Interview

(continued from page 6)

6. Weak Point

Identify a weak point and explain what steps you are currently taking to address this weakness. Do not list a weak point that is actually a strong point! Instead, demonstrate that you are introspective and focused on self-improvement.

7. Strong Point

If you have trouble identifying a strength, think about what you consider the coolest part of your work and expand upon why you enjoy that. For technical strengths, prove your mastery by demonstrating your experience through detailing tricks, pitfalls, or the pros and cons of potential approaches to problems.

8. Why You?

Interviewers will likely ask "why should we choose you for this position?" According to Morgan, do not compare yourself to other job candidates. Do not use adjectives. Instead, explain why you would do the job for no money or recognition; why you want the position; or what you are giving up to pursue this position.

9. Current Work

Address how your work focuses on the same question or principles that your potential employer cares about—which can be found in their mission statement. Morgan references similar techniques (including the "Common Ground Funnel") to those covered in his "Speaking about Science: Giving Scientific Talks" workshop.

10. Hypothetical Questions

What happens when an interviewer says, "Suppose that..." followed by a hypothetical situation? If the situation posed in the question has not happened to you, detail the protocol of how you would handle the situation. If the hypothetical situation has happened to you, then this question falls under a different category!

Once you assign the question to a category, Morgan stresses the importance of answering the question without veering into a different category mid-answer. Remember that the candidate must share information with the interviewer, so be sure to give enough depth to each answer. With proper practice and preparation, Morgan's method of categorizing questions—whether about you or your research—will raise confidence and lower nerves.

The Rep Report

By Anshika Jain, PhD

As the current NICHD Basic Sciences Institutes and Centers (IC) Representative, I represent NICHD postdoctoral fellows at the Fellows Committee (FelCom) meeting every month and share the latest news with you here. Do you have a concern or question that you want brought up at the next meeting? Contact me at anshika.jain@nih.gov!



Congratulations to FelCom's newly elected Membership Secretary, Dr. Sara Young, and to the new Administrative Secretary, Dr. Danielle Sambo!

There are openings in the Visiting Fellows Committee. If you are interested in joining, please reach out to Drs. Vrushali Agashe (<u>vrushali.agashe@nih.gov</u>) and Michael Buch (<u>michael.buch@nih.gov</u>).

The NIH Career Symposium is being planned and is scheduled for May 8, 2020. Mark your calendars! If there are any speakers you would like to see there, please reach out to Dr. Lori Conlan (OITE) (conlanlo@mail.nih.gov) with your suggestions.

FelCom is looking for someone to attend the National Postdoc Association (NPA) National Conference to be held March 27–29, 2020, at the San Diego Marriott Mission Valley. The NPA meeting is primarily focused on how to improve postdoc associations at your institution. They also have seminars on marketing yourself, conflict management, and other relevant topics. Please reach out to NIAID postdoc Dr. Helena Fabryova (helena.fabryova@nih.gov) if you want more information about the conference and/or would like to attend, contact Dr. Lori Conlan (conlanlo@mail.nih.gov).

The liaison to the Training Director's Committee, Dr. André Rose, announced that the committee is in discussion about next year's **health insurance for fellows**. The committee wants to know fellows' concerns—what fellows like and what fellows would like to see changed. Any comments that you have for the committee should be directed to Dr. Rose (**roseas@mail.nih.gov**).

(continued on page 9)



Anshika Jain, PhD

The Rep Report

(continued from page 8)

At the last ChildCare Board meeting, "Work-Life@NIH: A Supervisor's Guide to Enhancing Workforce Well-being" was presented. This training will be provided three times in 2020, and you don't need to be a supervisor to participate. For more information visit **the Wellness@NIH website**.

There is a new emphasis on including pregnant women in studies. If you are doing research that involves pregnant women as research subjects, please contact **IRB Office staff** early in the proposal development process. If you are developing a proposal that incorporates both novel clinical research and routine standards of medical care, there are different levels of detail concerning risks of participant participation. Pls and trainees should work with IRB operations staff to determine how much detail in informed consent documents is needed to accurately communicate risk information.

Some upcoming events to keep an eye out for include:

Symposium with the Division of International Services Thursday, February 13, 9 a.m. – 1 p.m. Building 35, Room 640

In this four-hour symposium hosted by the Visiting Fellows Committee, officials will explain the visa process and J-1 waiver for international fellows and answer any questions or concerns. If you have a particular question you would like addressed, please reach out to the visiting fellows committee co-chairs Drs. Michael Buch (michael.buch@nih.gov) or Vrushali Agashe (vrushali.agashe@nih.gov).

Medical Science Liaison (MSL) Panel Tuesday, February 18, 3 – 5 p.m. Building 35, Room 640

The audience will learn about MSL positions, and the panelists will give advice on how to transition to this career path.



Upcoming NIH-Wide Office of Intramural Training and Education (OITE) Events

For more information and registration, please visit **Upcoming OITE Events**.

Feb 3 So, you want to be a Physician Scientist: UT Health San Antonio MD/PhD Program Your Rights and Responsibilities as an NIH Trainee - 2 p.m. Session, 4 p.m. Session Feb 4 **OITE Orientation for Graduate Students and Postdoctoral Fellows** Feb 5 **Workplace Dynamics III: Conflict & Feedback** Feb 10 Scientists Teaching Science 2-Hour Workshop – AM Session, PM Session Feb 11 **Postbac Seminar Series** Feb 12 **Ethics in Research Training for Postbacs and Grad Students** Your Rights and Responsibilities as an NIH Trainee - 12 p.m Session, 2 p.m. Session, 4 p.m. Session **Writing Personal Statements for Professional School** Feb 27 **English Communication for Visiting Scientists**

Feb 28 Preparing for Tests, Interviews, and Talks: How to Calm Our Minds and Bodies



SAVE THE DATE!

16th **Annual NIH Graduate Student Research Symposium** Thursday, February 20, 9:15 a.m. – 4:45 p.m. Natcher Conference Center

This daylong **event** showcases graduate student research at the NIH and includes:

- » Elevator pitch competition
- » Student talks
- » Poster presentations of dissertation research
- » Keynote address
- » Presentation of the annual Outstanding Mentor Awards
- » The annual GPP graduation ceremony
- » NIH Graduate Student Research Awards (NGSRAs)

A full agenda is available at https://www.training.nih.gov/gsc/symposium/16th/agenda.

NIH Library Training and Events

NIH Library Training Classes Now Available for Registration

In-person classes are held in the NIH Library Training Rooms, Clinical Center, Bldg 10, and webinars are held online. For more information:

- » https://www.nihlibrary.nih.gov/training/calendar
- » 301-496-1080
- » nihlibrary@nih.gov

Feb 3	<u>Types of Literature Reviews</u> (online)
Feb 4	Tips for the Path to Publishing Success (online)
Feb 5	Introduction to the Systematic Review Process (online)
Feb 6	Measuring Your Citation Impact (in-person & online) Developing and Publishing Your Systematic Review Protocol (online) From RePORTER to Web of Science and InCites: Publication Analysis (online)
Feb 12	Developing the Research Question and Conducting the Literature Search (online) Gray Literature (online) Introduction to the BTRIS Limited Data Set (in-person)
Feb 18	Screening Best Practices and Managing Your Data for Systematic Reviews (online)
Feb 19	Introduction to Web of Science (online) Using EndNote for Systematic Reviews (online)
Feb 20	Introduction to PubMed (online)
Feb 24	Advanced PubMed (in-person & online)
Feb 25	Writing and Publishing Your Systematic Review (online) 3D Printing and Modeling Fundamentals (in-person)
Feb 26	Introduction to EndNote Online (online)
Feb 27	Meta-Analysis: Quantifying a Systematic Review (in-person & online) Principles of Effective Data Visualization (in-person & online)

February Announcements

THREE-MINUTE TALKS (TMT): DEADLINE TO ENTER IS FRIDAY, FEBRUARY 7

To enter, complete the **2020 Submission Form**. The submission form, competition rules and judging criteria are available at **NICHD TmT Webpage**. The first workshop, "Speaking about Science," led by public speaking coach Scott Morgan, will be held on Tuesday, February 13, from 10 a.m. to 12 p.m.



COMMUNICATE YOUR RESEARCH TO THE PUBLIC

Did you know? The NICHD Office of Communications posts intramural research findings on the institute's social media accounts. They're looking for fellows to discuss their work and pose for pictures in the lab, to offer a behind-the-scenes look at research. If you are interested or have biomedical art images to share, please contact Dr. Linda Huynh at linda.huynh@nih.gov.

If you have an accepted manuscript that is potentially newsworthy for the general public, please email the office's press team at nichdpress@mail.nih.gov before the paper is published. Include a copy of the manuscript and a brief, plain language explanation on why the work is important.

GENETICS POLICY AND GENETICS EDUCATION FELLOWSHIP OPPORTUNITIES

Beginning this month, applications will be accepted for the 2020 Genetics & Public Policy and Genetics Education & Engagement fellowships, cosponsored by the American Society of Human Genetics (ASHG) and the National Human Genome Research Institute (NHGRI).

For more information, and to apply, visit <u>Genetics & Public Policy Fellowship</u> and <u>Genetics Education & Engagement Fellowship</u>.

February Events

TUESDAY, FEBRUARY 13, 10 AM – 12 PM
Three-Minute Talks (TmT) Workshop #1: "Speaking about Science."

Led by public speaking coach Scott Morgan, this workshop offers tips on scientific storytelling, speaking in plain language while addressing the human health relevance for your research, and creating effective visual aids.

This event requires registration. For more information, please contact Dr. Erin Walsh at erin.walsh@nih.gov.

THURSDAY, FEBRUARY 27, 3 – 4 PM
NICHD Fellows Advisory Committee Meeting
Building 31, Conference Room 2A48

Please email Dr. Erin Walsh (**erin.walsh@nih.gov**) if you are planning to attend.